

Xtra.Remote Control (mk2)

1. INSTALLATION OF THE REMOTE CONTROL

The following accessories are related to the Remote Control Unit:

- Remote Control Unit
- Adapter (1A @ 5V DC)
- Pair of rechargeable batteries (NiMH)
- Industrial silicon cover is included by default



a. Placing the batteries

The Xtra.Remote Control Unit can be used with 2 rechargeable NiMH batteries type AA. To insert these batteries, open the cover by unscrewing the lid. Place the batteries according to the symbols + and – labelled in the battery compartment. Close the battery compartment by screwing back the screws just hand tight.



Important:

- Only use rechargeable batteries of the type NiMH
- Do **NOT** use conventional batteries
- Do **NOT** use alkaline batteries
- Do **NOT** use Lithium batteries
- Do **NOT** use old and new batteries together
- Do **NOT** use batteries from different manufacturers together

Batteries contain chemical substances. Treat old batteries as chemical waste and don't leave them in the vicinity of children.

b. Connecting the adapter

Connect the provided adapter to the USB port on top of the Xtra.Remote Control unit and plug the adapter into the mains power supply socket.

Connecting the adapter to the Remote Control allows it to be used without batteries. The adapter can also be used to charge the NiMH batteries in the Xtra.Remote Control.

The Xtra.Remote Control will also charge if it is connected to a PC with a mini-USB cable.

2. STARTING THE REMOTE CONTROL

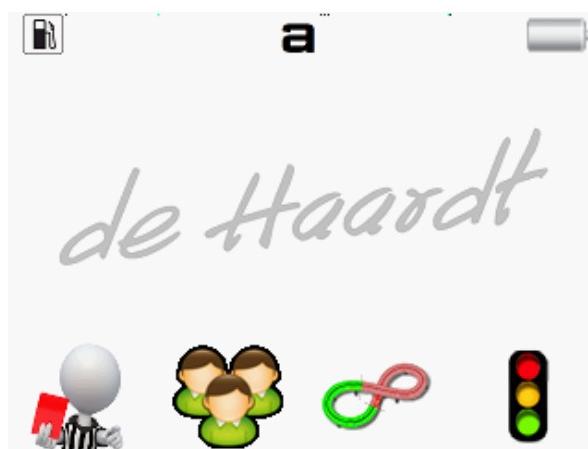
a. Switching the Remote Control On/Off

Press the **ON/OFF** button on the keyboard of the Xtra.Remote Control for at least one second to turn the device on. Once on, you can turn the device off by pressing the same button until the device turns off.



b. The main menu and navigation

After turning on the Xtra.Remote Control, the main menu will appear.





c. Electro/Fuel

In the top-left corner, a **fuel** or **electro** icon is shown indicating the current mode of the Xtra.Remote Control.

Both electro and fuel karts can be controlled with one Xtra.Remote Control. Please select the type of karts that are used on the active track.

Possible options are:

Fuel kart (default)



Electro kart



[SEE CONFIGURATION MENU FOR MORE DETAILS](#)

d. Track selection

In the top centre, 1 to 4 letters are shown. These correspond to the **tracks** that are activated on the Xtra.Remote Control. By default, track **A** is activated. If your kart track is near another track, consider changing the track.

Tracks can be turned On or Off.

This functionality is useful if more karting tracks are located nearby.

The tracks are indicated with the characters **A**, **B**, **C** and **D**.



[SEE CONFIGURATION MENU FOR MORE DETAILS](#)

e. Battery icon

In the top-right corner, a battery icon is shown indicating the charge of the batteries.



f. Speed button settings

On the remote control, there are 4 buttons dedicated to reducing the speed of the kart(s). These buttons are:

SPD1, SPD2, SPD3, SPD4



Button **SPD1** (Speed 1) is intended for the lowest speed and **SPD4** (Speed 4) for the highest speed.

The default speed limits are set to the following:

SPD1 – RPM 2100

SPD2 – RPM 3000

SPD3 – RPM 4000

SPD4 – RPM no limit

If required, the RPM settings can be changed according to your own requirements.



[SEE CONFIGURATION MENU FOR MORE DETAILS](#)

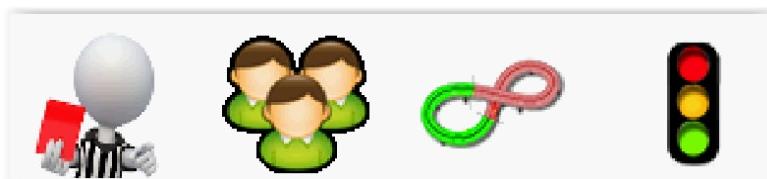


g. Soft button bar

The icons in the lower part of the screen can be chosen by the soft button bar. The icons displayed change depending on the active menu.



In the main menu, the following icons are shown by default:



Penalty

Groups

Sectors

Lights

The main menu can be returned to from any menu by pressing **SHIFT** followed by the **0** button.



3. BASIC OPERATION OF THE REMOTE CONTROL

a. Stopping all karts at once

Pressing the **SHIFT** button followed by the **STOP** button stops all the karts at once.

If required, the Xtra.Remote Control can be programmed so that this function can be executed by pressing the **STOP** button only.

All karts (with or without **SHIFT** as configured) can be stopped directly from any menu.



[SEE CONFIGURATION MENU FOR MORE DETAILS](#)

b. Adjusting the speed of all karts

Press one of the SPD buttons without a preceding number.
To remove the speed limit, use SPD4.

c. Adjusting the speed of an individual kart

The speed of individual karts can be adjusted in 2 ways:

1. By entering the serial number of the Xtra.Shutdown Transponder mounted on the kart concerned and then pressing one of the SPD buttons.
2. By entering the kart number and then pressing one of the SPD buttons.

Serial numbers range from 65536 to 1048575.
Kart numbers range from 1 to 245.

Several succeeding kart numbers can be stopped by pressing the first number, then ENTER, then the last number in the sequence followed by the requested SPD button.



[SEE CONFIGURATION MENU FOR MORE DETAILS](#)



d. Adjusting the speed of a group of karts

Before this function can be used, the user must first assign (one time only) group number(s) to the Xtra.Shutdown Transponder.

[SEE CONFIGURATION MENU FOR MORE DETAILS](#)

The speed of a group of karts can be adjusted by entering the group menu and then pressing the group number and the requested SPD button.
Group numbers range from 1 to 5.



e. Adjusting the speed in multiple sectors

To use this option, the kart must be fitted with an Xtra.Sector Sensor which is connected to the Xtra.Shutdown Transponder through the network. The track must also be subdivided into sectors using the Xtra.Sector Beacon.

To adjust the speed of all karts in a specific sector, enter the sector menu, press the number of the sector and finally the SPD button.



To adjust the speed in several succeeding sectors, enter the sector menu, press the first sector number and then the ENTER button. Then press the last sector number followed by the SPD button.



f. Penalties

Penalties (a brief speed limitation) can be given to an individual kart, a group of karts or all karts. Enter the penalty menu by pressing the button below the penalty icon shown on the right.



Giving the penalty to all karts is done by pressing the SPD button from this menu without a preceding number.



To give a penalty to one kart only or a group of karts, first select

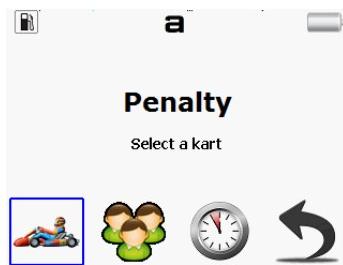
penalty icon



then Kart icon



or Group icon



and then press the kart or group number followed by the SPD button.

The penalty time can be changed by pressing the button below the clock icon in the penalty menu.



Scroll up or down by pressing the button below these icons



And press the button below to confirm your choice. This penalty time will be saved until another time is set.

g. Operating (race) lights

By default the Xtra.Remote control can operate the Red, Yellow and Green (race) lights.

To operate the (race) lights, enter the light menu by pressing the button below the lights icon shown on the right.



Lights can be toggled by pressing the button below the corresponding colour.



4 extra functions have been added to quickly turn multiple lights on and off:

7 will turn RED on and yellow and green OFF.

8 will turn YELLOW on and red and green OFF.

9 will turn GREEN on and yellow and red OFF.

0 will turn all lights OFF.



4. CONFIGURING THE REMOTE CONTROL

a. Configuration menu

Use the **RIGHT** button to go to the configuration menu. This menu is protected with a PIN code. The default PIN code is 0000.

The PIN code can be changed or disabled. For more information see paragraph b, xi.



The configuration menu displays all the components of the system which can be configured by the Xtra.Remote Control.

The following sub-menus can be accessed from the configuration menu.



Transponder
menu

Preferences
menu

Advanced
functions

By pressing the SHIFT and 0 button, you can leave any menu at any time.

b. Preferences menu

The remote control can be configured to suit your requirements and preferences.

Press the button below the icon shown on the right to change the preferences of the remote control.



Navigate through the preferences with buttons below "Up" and "Down".



Alternatively the **LEFT** or **RIGHT** button can be used (buttons right next to the STOP button).



i. Stop or Shift Stop

All karts can be stopped by pressing STOP with or without SHIFT.

As this will cause all engines to stop running, pressing STOP by accident on a track with fuel karts is not acceptable.

Possible options are:

- Stop with Shift (default)
- Stop without Shift

ii. Penalty Time

The time that a kart is slowed down when given a penalty can be configured from this menu. The same menu is also accessible from the penalty menu itself.

Possible options are:

- 3 seconds
- 5 seconds
- 10 seconds (default)
- 20 seconds
- 30 seconds

iii. Display Brightness

The brightness of the LCD screen can be configured in this menu. Remember that a higher brightness will drain the batteries more quickly.

Possible options are:

- Maximum
- High (default)
- Medium
- Low

iv. Energy save time

The display will dim down if no buttons are pressed for a certain time. This time can be configured here.

This feature will make the batteries last longer.

Possible options are:

- Always active (disables this feature)
- 10 seconds
- 30 seconds (default)
- 60 seconds

90 seconds

v. Power Off Time

The Xtra.Remote Control can power off itself to reduce battery usage.

Possible options are:

- Always active (disables this feature)
- 2 minutes
- 5 minutes
- 10 minutes (default)
- 30 minutes
- 60 minutes

vi. Language

The Xtra.Remote Control supports multiple languages.

Possible options are:

- English (default)
- Nederlands
- Français
- Deutsch
- Italiano
- Español

vii. Electro/Fuel

Both electro and fuel karts can be controlled with one Xtra.Remote Control. Please select the type of karts used on the active track.

Possible options are:

Fuel kart (default)



Electro kart



viii. Track selection

Active tracks can be toggled by pressing the button below the corresponding track. It is possible to use the remote control on several circuits simultaneously. After changing the active tracks, press ENTER to confirm the changes. Changes can be undone by pressing the LEFT or RIGHT button



This functionality is useful if more karting tracks are located nearby.



The tracks are indicated with the characters **A**, **B**, **C** and **D**.
Activated tracks are shown on the start screen.

ix. Speed/RPM settings for fuel karts

For fuel karts, the standard RPM values can be modified to the needs of the karts in use or the layout of your track.

The default speed limits are set to the following:

SPD1 – RPM 2100

SPD2 – RPM 3000

SPD2 – RPM 4000

SPD4 – RPM no limit

The first 3 speeds can be changed to any RPM value needed, with a max. value of 8,000 rpm.

x. Show commands from others

It is possible to display commands sent by other Xtra.Remote Controls, Xtra.Mini Remotes or Xtra.Range Extenders.

Possible options are:

Show Others

Hide others (default)

xi. Protect Advanced Functions

The configuration menu can be protected with a PIN code. In that case, the PIN code must be entered before access to the configuration menu is granted. The default PIN code is **0000**. The PIN code can also be changed or disabled.

Select one of the options given:

Disable protection

Change PIN code

With this feature, settings and preferences can only be changed by personnel knowing the PIN code.

xii. Use penalties

If penalties are not be used, this function may be removed from the main menu.

Possible options are:

- Disable penalties (the penalty icon will disappear from the start screen)
- Enable penalties (default)

xiii. Use groups

If groups are not be used, this function may be removed from the main menu.

Possible options are:

- Disable groups (the group icon will disappear from the start screen)
- Enable groups (default)

xiv. Use sectors

If sectors are not be used, this function may be removed from the main menu.

Possible options are:

- Disable sectors (the sector icon will disappear from the start screen)
- Enable sectors (default)

xv. Use lights

If no light control board is installed, this function may be removed from the main menu.

Possible options are:

- Disable lights (the light icon will disappear from the start screen)
- Enable lights (default)

5. CONFIGURING THE TRANSPONDERS

a. Connecting a kart

To connect to a kart, enter the configuration menu and press the button below the symbol on the right (transponder menu).

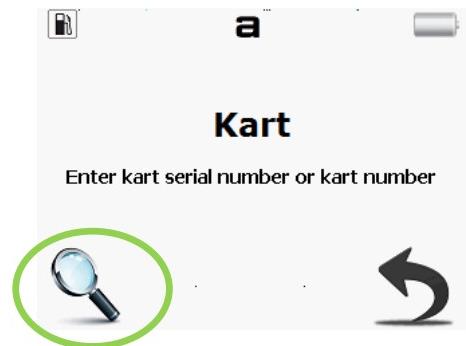


The following screen will appear.

Connecting to a kart can be done in the following ways.

Enter the serial number or short number of the transponder and press the search button.

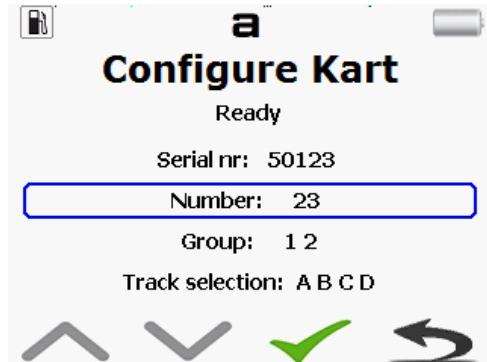
NOTE: the transponder to be configured must be mounted on an active kart!



Or power off all karts on the track, except the kart to be configured. Then press the search button without a number. The remote control will now connect to any active kart. Remember that only one kart may be active when using this feature.

After a successful connection with a transponder, the following screen will be shown.

Use the up and down buttons to navigate through the menu.



i. Serial number

The serial number corresponds to the serial number on the label of the transponder. The serial number cannot be changed.

ii. Number (kart number)

The (kart) number can be changed to any number from 1 to 245. It is advisable to give a unique (kart) number to each kart.

Change the (kart) number by entering the new number and press  to send the new settings.

iii. Group

Each transponder can be assigned to between one and 5 groups.

To change the group membership of a transponder, select the group line and press the corresponding number to toggle the membership. Press 0 to remove all groups.

Change the group number by entering the new number and press  to send the new settings.

iv. Track selection

Each transponder must be assigned to at least one track. To change the tracks of a transponder, select the track line and press:

1 to toggle track A

2 to toggle track B

3 to toggle track C

4 to toggle track D

If no tracks are selected, track A will automatically be activated.

v. Read Timer

The transponder holds an active time timer. To read this timer, select the “Read timer” line and press .

vi. Reset Timer

To reset the timer, select the “Reset timer” line and press .

vii. Read Voltage and rpm

The supply voltage and rpm of a transponder can be monitored.

There is a difference between Fuel and Electro karts. The Xtra.Remote Control will automatically detect the type of transponder it connects to.

A fuel transponder will monitor the Average RPM, the Actual RPM and the supply voltage.

An electro transponder will monitor the actual voltage of the battery. The minimum and maximum values are also monitored.

viii. Software Version

This line will show the software version of the transponder.

ix. Switch table (EV only)

The EV transponder holds a table that configures the setting of the relays. Each speed can have its own set of relays settings.

This menu has the following options.

Recall switch table from remote

Store switch table into remote

Receive from any transponder

Send to any transponder

Power up relays settings

Stop Kart relays settings

Speed 1 relays settings

Speed 2 relays settings

Speed 3 relays settings

Speed 4 relays settings

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